CHAPTER

7 International Investment Position

A. Concepts and Coverage

References:

2008 SNA, Chapter 13, The Balance Sheet.
IMF, *Monetary and Financial Statistics Manual 2000.*
IMF, *International Investment Position: A Guide to Data Sources.*
IMF and others, *External Debt Statistics: Guide for Compilers and Users.*

7.1 *The international investment position (IIP) is a statistical statement that shows at a point in time the value and composition of*

(a) *financial assets of residents of an economy that are claims on nonresidents and gold bullion held as reserve assets, and*

(b) *liabilities of residents of an economy to nonresidents.*

The difference between an economy's external financial assets and liabilities is the economy's net IIP, which may be positive or negative.

7.2 The IIP is a subset of the national balance sheet. The net IIP plus the value of nonfinancial assets equals the net worth of the economy, which is the balancing item of the national balance sheet. The classification of nonfinancial assets is shown in Table 5.1 and linked to corresponding income items in Table 5.2.

7.3 The IIP relates to a point in time, usually at the beginning of the period (opening value) or end of the period (closing value).

7.4 This chapter explains the coverage, presentation, classification, timing, and valuation issues for the IIP, and its relationship to transactions accounts and other changes in assets and liabilities account.

7.5 The content of the IIP can be presented in several different ways. Table 7.1 shows an overview of the structure and components of the IIP by functional category and broad financial instruments. This presentation emphasizes how changes in the IIP result from financial account transactions (discussed in Chapter 8) and other changes in financial assets and liabilities (discussed in Chapter 9) during a period.

7.6 Table 7.2 provides another presentation that emphasizes the breakdown of the IIP by institutional sector and functional category. Institutional sectors in the IIP refer to the resident sector, not the counterpart sector (i.e., the sector of the domestic holder or lender for assets, and the sector of the domestic issuer or borrower for liabilities).

Additional detail

7.7 This edition of the *Manual* reflects the increasing emphasis on the IIP in international accounts compilation and analysis. There has been growing recognition of the role of balance sheet analysis in understanding sustainability and vulnerability, including currency mismatches, the implications of sector and interest rate composition of debt, and the effect of the maturity structure on liquidity. IIP data are useful for other purposes, such as measuring rates of return, analyzing economic structure, and studying the relationship to domestic sources of financing.

7.8 Consequently, a currency composition and remaining maturity analysis of the IIP are encouraged as additional information. To meet this goal, memorandum and supplementary tables have been introduced in Appendix 9, and are shown after the standard components. These tables provide a presentation of currency composition of assets and liabilities by sector with a distribution by principal foreign currencies, including the U.S. dollar, euro, yen, and others, together with a breakdown by original maturity. The tables also provide information on the remaining maturity of long-term debt liabilities, with a breakdown by sector. These tables are consistent with the standard components of the IIP and with the presentation adopted in *External Debt Statistics: Guide for Compilers and Users.*

Table 7.1. Integrated International Investment Position Statement
(Including functional categories, instruments, and link to financial and other changes accounts)

	Beginning of period IIP	Financial account: Transactions	Other changes in financial assets and liabilities account: Changes in position due to: Other changes in volume	Exchange rate changes	Other price changes	End of period IIP
Assets						
By functional category						
Direct investment						
Portfolio investment						
Financial derivatives (other than reserves) and ESOs						
Other investment						
Reserve assets						
By instrument						
Equity and investment fund share/units						
Debt instruments						
Special drawing rights						
Currency and deposits						
Debt securities						
Loans						
Insurance, pension, standardized guarantee schemes						
Other accounts receivable/payable						
Other financial assets and liabilities						
Monetary gold						
Financial derivatives and ESOs						
Total assets						
Liabilities						
By functional category						
Direct investment						
Portfolio investment						
Financial derivatives (other than reserves) and ESOs						
Other investment						
By instrument						
Equity and investment fund share/units						
Debt instruments						
Special drawing rights						
Currency and deposits						
Debt securities						
Loans						
Insurance, pension, standardized guarantee schemes						
Other accounts receivable/payable						
Other financial assets and liabilities						
Financial derivatives and ESOs						
Total liabilities						
Net IIP						

Note: This table is expository; for Standard Components, see Appendix 9.
ESO = employee stock option; IIP = international investment position.

For additional information

7.9 Several other guides provide specialized guidance on particular aspects of the IIP and related statistics, namely:

- BIS, *Guide to the International Financial Statistics* (BIS Paper No. 14, February 2003);
- IMF, *Coordinated Direct Investment Survey Guide*;
- IMF, *Coordinated Portfolio Investment Survey Guide*;
- IMF and others, *External Debt Statistics: Guide for Compilers and Users*;

Table 7.2. Overview of the International Investment Position
(With resident institutional sector breakdown)

Assets						Liabilities				
Total economy	Households and NPISHs	General government	Financial corporations	Nonfinancial corporations		Nonfinancial corporations	Financial corporations	General government	Households and NPISHs	**Total economy**
					Direct investment					
					Portfolio investment					
					Financial derivatives (other than reserves) and employee stock options					
					Other investment					
					Reserve assets					
					Total assets/liabilities					
					Net IIP					

Note: This table is expository; for Standard Components, see Appendix 9.
IIP = international investment position; NPISHs = nonprofit institution serving households.
Memorandum items:
Fair value of loan assets (or nominal value of nonperforming loan assets)
Short-term reserve-related liabilities
Currency composition

- IMF, *International Investment Position: A Guide to Data Sources*;
- IMF, *International Reserves and Foreign Currency Liquidity: Guidelines for a Data Template*; and
- OECD, *OECD Benchmark Definition of Foreign Direct Investment.*

These guides are based on the same core principles, with additional elements including more detail, alternative valuations, discussion of implementation issues, and additional items, such as contingencies, guarantees, and other off-balance-sheet items.

1. Definition of economic assets

Reference:

2008 SNA, Chapter 10, The Capital Account.

7.10 The IIP covers the subset of financial assets and liabilities that have an international character. In most cases, the international character of a financial asset or liability arises because, of the two parties, one is a resident and the other is nonresident. The gold bullion component of monetary gold is the only case of a financial asset with no counterpart liability. The scope and definitions of different types of economic assets is given in paragraphs 5.2–5.14.

7.11 The concept of ownership of assets in the IIP is based on economic ownership, as defined in paragraph 3.41. *The economic owner is the party who has the risks and rewards of holding the asset*. Ownership of financial assets can be complex in some legal arrangements, for example, the lessor under a financial lease has the legal title, while the lessee has most of the risks and benefits of ownership. (For further details on financial leases, see paragraphs 5.56–5.59 and 7.57.)

2. Classification

7.12 Possible dimensions for the classification of the IIP are:

(a) Functional category—direct investment, portfolio investment, financial derivatives (other than reserves) and ESOs, other investment, and reserve assets, as defined in Chapter 6;

(b) Financial instrument—according to the broad groupings (equity and investment fund shares, debt instruments, and other financial assets and

liabilities) or the full breakdown, as defined in Chapter 5;

(c) Institutional sector of resident party—at least, central bank, deposit-taking corporations except the central bank, general government, and other sectors; other sectors is split between other financial corporations and the remaining nonfinancial subsectors (nonfinancial corporations, households, and NPISHs), as defined in Chapter 4, Section D. Additional subsectoring of the financial and nonfinancial sectors may be undertaken when analytically relevant;

(d) Maturity (in the case of debt instruments)—short-term or long-term, by original and remaining maturity, as defined in paragraphs 5.103–5.105;

(e) Currency—domestic or foreign currency, as defined in paragraphs 3.95–3.97 for debt and 3.100 for equity; and (in the case of financial derivatives) to receive or pay foreign currency, as defined in paragraph 5.108; and

(f) Interest rate structure (in the case of debt instruments)—variable- or fixed-rate, as defined in paragraphs 5.109–5.114.

Sector, maturity, and currency are relevant to studies of sustainability, vulnerability, and exposure to exchange rate changes (after taking into account any hedging). The remaining maturity is important to the debtor, but it is less relevant for the creditor with liquid instruments, in that the assets can be sold before maturity. In addition to the institutional sector of the resident party, as in (c), the institutional sector of nonresident counterparty may also be of interest in some cases (e.g., governments may wish to distinguish between other governments, international organizations, and other sources of their borrowing).

7.13 A consistent classification should be used as far as possible for IIP and other related accounts. The stock of assets and liabilities, financial account transactions, and other changes in financial assets and liabilities all relate to the same instruments, so a consistent classification is necessary for a comprehensive analysis of relationships between them. Similarly, a consistent level of detail for income (and possibly holding gains or losses, for some purposes) and positions allows the estimation of rates of return. Although the international accounts functional classification of assets and liabilities is not used in the *SNA* or financial statistics, the instrument and institutional sector classifications are the same. The inclusion of instrument and sector detail in IIP data facilitates understanding and checking the linkages with other data sets such as monetary and financial statistics.

B. Direct Investment

7.14 Direct investment is defined in paragraphs 6.8–6.24. Other aspects of direct investment are covered in paragraphs 6.25–6.41. The directional principle presentation of direct investment can be used in the IIP on a supplementary basis, as discussed in paragraphs 6.42–6.45 and Box 6.4. Other specific issues concerning direct investment in the IIP are discussed in the following paragraphs.

1. Valuation of unlisted and other equity

References:

OECD, *OECD Benchmark Definition of Foreign Direct Investment*, fourth edition.

IMF, *Coordinated Direct Investment Survey Guide*.

7.15 Shares and other equity can be readily valued at their current prices when they are regularly traded on stock exchanges or other financial markets. However, there may be no observable market prices for positions in equity not listed on a stock exchange (i.e., items (b) and (c) in paragraph 5.24). This situation often arises for direct investment enterprises, private equity, equity in unlisted and delisted companies, listed but illiquid companies, joint ventures, and unincorporated enterprises.

7.16 When actual market values are not available, an estimate is required. Alternative methods of approximating market value of shareholders' equity in a direct investment enterprise include the following:[1]

(a) Recent transaction price. Unlisted instruments may trade from time to time, and recent prices, within the past year, at which they were traded may be used. Recent prices are a good indicator of current market values to the extent that conditions are unchanged. This method can be used as long as there has been no material change in the corporation's position since the transaction date. Recent transaction prices become increasingly misleading as time passes and conditions change.

[1]These are not ranked according to preference, and each would need to be assessed according to the circumstances and the plausibility of results.

(b) Net asset value. Appraisals of untraded equity may be conducted by knowledgeable management or directors of the enterprise, or provided by independent auditors to obtain total assets at current value less total liabilities (excluding equity) at market value. Valuations should be recent (within the past year) and should preferably include intangible assets.

(c) Present value and price-to-earnings ratios. The present value of unlisted equity can be estimated by discounting the forecast future profits. At its simplest, this method can be approximated by applying a market or industry price-to-earnings ratio to the (smoothed) recent past earnings of the unlisted enterprise to calculate a price.[2] This method is most appropriate in which there is a paucity of balance sheet information but earnings data are more readily available.

(d) Market capitalization method. Book values reported by enterprises can be adjusted at an aggregate level by the statistical compiler. For untraded equity, information on "own funds at book value" (see paragraph 7.16(e)) can be collected from enterprises, and then adjusted with ratios based on suitable price indicators, such as the ratio of market capitalization to book value for listed companies in the same economy with similar operations. Alternatively, assets that enterprises carry at cost (such as land, plant, equipment, and inventories) can be revalued to current period prices using suitable asset price indices.

(e) Own funds at book value. This method for valuing equity uses the value of the enterprise recorded in the books of the direct investment enterprise, as the sum of (a) paid-up capital (excluding any shares on issue that the enterprise holds in itself and including share premium accounts); (b) all types of reserves identified as equity in the enterprise's balance sheet (including investment grants when accounting guidelines consider them company reserves); (c) cumulated reinvested earnings; and (d) holding gains or losses included in own funds in the accounts, whether as revaluation reserves or profits or losses. The more frequent the revaluation of assets and liabilities, the closer the approximation to market values. Data that are not revalued for several years may be a poor reflection of market values.

(f) Apportioning global value. The current market value of the global enterprise group can be based on the market price of its shares on the exchange on which its equity is traded, if it is a listed company. Where an appropriate indicator may be identified (e.g., sales, net income, assets, or employment), the global value may be apportioned to each economy in which it has direct investment enterprises, on the basis of that indicator, by making the assumption that the ratio of net market value to sales, net income, assets, or employment is a constant throughout the transnational enterprise group. (Each indicator could yield significantly different results from the others.)

7.17 In cases in which none of the above methods are feasible, less suitable data may need to be used as data inputs. For example, cumulated flows or a previous balance sheet adjusted by subsequent flows may be the only sources available. Because these sources use the prices of previous periods, they should be adjusted for subsequent price developments, for example, by using aggregate share price or asset price indexes and by taking into account exchange rate movements, where relevant. The use of unadjusted summing of past transactions is not recommended. Equity represents owners' funds. The means through which equity can be generated may take various forms, such as share issues, equity injections without any commensurate issue of shares (sometimes called "contributed surplus" or "capital contributions"), share premiums, accumulated reinvested earnings, or revaluation. Although these categories should be taken into account when cumulated flows are used to measure the value of equity, the different categories are all components of equity and need not be identified separately.

7.18 If the current market price is not directly observable, the decision about the methods to adopt should take into account the availability of information as well as judgments as to which available method best approximates market values. Different methods may be suitable for different circumstances and a standard ranking of the alternative methods is not proposed for valuing instruments when current market prices are not directly observable. Compilers should be transparent and should state clearly the method(s) used. Methods

[2]The earnings measure and earnings in the price-to-earnings ratio should be defined in the same way. It is preferable that measures of earnings and ratios exclude one-off factors, such as asset sales, as such factors could distort the calculation.

for valuation of direct investment equity positions are discussed in more detail in the *OECD Benchmark Definition of Foreign Direct Investment*. These methods may also be useful for valuation of other unlisted equity securities and other equity.

7.19 The value of a direct investment enterprise's nonequity liabilities may exceed its assets—this situation can occur most commonly in the early or final stages of its existence.

2. Entities that borrow on behalf of their affiliates

Reference:

OECD, *OECD Benchmark Definition of Foreign Direct Investment*, fourth edition.

7.20 An entity resident in one economy may borrow funds on behalf of affiliated enterprises in one or more other economies. The affiliates may include holding companies, parent companies, direct investment enterprises, and fellow enterprises. Examples include SPEs, sometimes called conduits, which may be used to undertake the borrowing, or an entity with substantial activities of its own may do the borrowing. In these cases, the liability is often guaranteed by the parent or a fellow enterprise. Alternatively, the affiliated enterprise may commit future revenue streams. Regulatory or taxation benefits may be factors behind such arrangements. In these cases, the creditor records a claim on the entity that directly undertakes the borrowing. That is, the creditor does not show its claim as being on the enterprise that ultimately receives the funds or makes the guarantee.

7.21 When funds raised are passed on by the borrowing entity to an affiliated enterprise, the initial borrowing entity has a claim on the affiliated enterprise. This arrangement can be assumed to give rise to a loan, unless there is evidence that it is a debt security or equity. This borrowing can arise for pass-through funds (discussed in paragraphs 6.33–6.34), conduits (paragraph 4.86), and SPEs and similar legal structures (paragraph 4.87). In many cases, such investment is reverse investment or investment between fellow enterprises, as discussed in paragraphs 6.39–6.41 and 6.43, respectively.

7.22 Special rules apply to an entity owned or controlled by general government when that entity is resident in another territory and is used for fiscal purposes. These rules are discussed in paragraphs 8.24–8.26.

3. Quasi-corporations

7.23 The identification of institutional units for branches, notional resident units for ownership of land and natural resources, some joint ventures, and preparatory operations prior to incorporation and other quasi-corporations is discussed in paragraphs 4.26–4.49. The effect of the identification of such institutional units is that owners are shown as having a claim on the institutional unit, rather than as directly owning the various individual assets.

7.24 Owners' claims on quasi-corporations that are resident in other economies are usually classified as direct investment. In the rare cases in which the proportion of equity in land or a joint venture is less than 10 percent, the claim is classified as other investment—other equity.

7.25 Equity in quasi-corporations should be valued as equal to the market value of the quasi-corporations' assets less the market value of liabilities other than equity to both residents and nonresidents. (This method would mean that quasi-corporations have no residual net worth.) Alternatively, equity in quasi-corporations may be valued using the same methods as used for direct investment equity, discussed in paragraphs 7.16–7.17.

C. Portfolio Investment

1. Equity with dividends declared payable but not yet paid

7.26 In market quotations, dividends declared payable but not yet paid are taken into account in the share price. After the point of time when ownership of shares is determined for the purposes of payment of dividends, the shares go "ex dividend." (Ex dividend is the point at which the shares no longer carry the right to the most recently declared dividend; so the dividend becomes separated from the share and the price falls to reflect that.) After that time, dividends declared should be included in accounts receivable/payable until payment is made.

2. Debt instruments with accrued interest

7.27 Accrued interest not yet paid on debt securities should be included in the outstanding amount of the financial asset or liability. Accrued interest not yet paid includes interest that has accrued and that is not yet due for payment or that is due for payment

but in arrears. Accrued interest not yet paid should not be reported separately (such as in other accounts receivable/payable). In market quotations, a value including interest that has accrued but is not yet payable is called the "dirty price" and is suitable for valuation of items in the IIP (provided interest due and not yet paid is also included). In contrast, the "clean price" requires accrued interest not yet paid to be added for use in the IIP. Methods of calculating the accrual of interest are discussed in paragraphs 11.48–11.76.

3. Short positions

7.28 Short positions occur when an institutional unit sells securities for which it is not the economic owner. For example, a security subject to a repurchase agreement may be on-sold by the security-receiving party (see paragraphs 5.52–5.54 on repurchase agreements). Delivery to the purchaser is made through the use of a borrowed security. The party with the short position records a negative value for the holding of the asset. The short position is shown as a negative asset, rather than a liability. (Short positions have been included on the research agenda for further work; see paragraph 1.43.)

4. Unlisted debt and equity securities

7.29 Positions in unlisted portfolio investment equity securities without an observable market price may be valued using methods discussed in paragraphs 7.16–7.17 for direct investment equity. Some listed debt securities also may have no quoted prices, for example, if the market is illiquid or the security ceases trading due to suspension, default, or bankruptcy. A market price can be estimated for such debt securities by discounting future cash flows using a discount rate that takes into account the risk of default (present value approach).

5. Debt securities at nominal values

7.30 Whereas the basic valuation method for debt securities is the market value, the nominal value is encouraged as a supplementary item. *External Debt Statistics: Guide for Compilers and Users* recommends that both valuations be used. The nominal value of debt securities is a useful measure of value from the viewpoint of the debtor, because at any moment, it is the amount that the debtor owes to the creditors.

6. Zero-coupon and deep-discount bonds

7.31 A zero-coupon bond has a single payment at maturity and no coupon payments. The bond is sold at a discount from face (or par) value, and at maturity, an amount equal to face value is repaid. The difference between the discounted issue price and the face value reflects the market rate of interest at the time of issue—the longer the maturity of the bond and the higher the market interest rate, the greater the discount against the face value. The accrual of interest on zero-coupon bonds is discussed in paragraph 11.55 and is illustrated in Box 11.2.

7.32 A deep-discount bond is a bond that has a low coupon compared with the market rate of interest, so that it is issued at a considerable discount to face value. Like the zero-coupon bond, the difference between the issue price and face value accrues as interest over the life of the bond, and the market value of the bond increases as the interest accrues. The accrual of interest on deep-discount bonds is discussed in paragraph 11.56.

D. Financial Derivatives (Other Than Reserves) and Employee Stock Options

7.33 Financial derivatives and ESOs are valued at market prices prevailing on balance sheet recording dates. If market price data are unavailable, other fair value methods (such as option models or present values) may be used to value them. Compilers are generally constrained to use the parties' own accounts.

7.34 For an option (including warrants), the market value recorded is the current value of the option—that is, the prevailing market price. In the absence of a prevailing market price, the estimated cost of buying out the rights of the option holder should be used. The counterpart liability is attributable, by convention, to the writer of the option and is valued at the current cost of buying out the rights of the option holder. For a warrant, the counterpart liability of the issuer is the current outlay required to buy out the exercise rights of the holder. A forward-type contract is recorded at market value; when payments are effected, a transaction is recorded and the change in the value of the asset and associated liability is reflected in the position (see paragraph 5.81 for discussion of offsetability).

7.35 A key characteristic of many derivative contracts is that the counterparties make commitments to transact, in the future and at agreed-on prices, in underlying items. The present value (or market price)

of a financial derivative is derived from the difference between the agreed-on contract price of an underlying item and the prevailing market price (or the market price expected to prevail), appropriately discounted, for that item. For options, the price depends on the potential price volatility of the underlying instrument, the time to maturity, interest rates, and the difference between the strike price and the market price of the underlying item. The value of a swap contract is derived from the difference, appropriately discounted, between expected gross receipts and gross payments.

7.36 The market value of a forward-type contract can switch from an asset position to a liability position (and vice versa) between reporting dates. The switch is a result of movement in the price of the underlying item(s) from which the value of the forward-type contract is derived. When a switch in position occurs (and there are no settlement payments), the market value of the gross asset or liability position at the close of the previous accounting period is revalued to zero, and the gross liability or asset position is revalued from zero to the market value at the end of the present accounting period.

7.37 Gross asset and gross liability data should be compiled by summing, respectively, the values of all individual contracts in asset positions and the values of all individual contracts in liability positions. Financial derivatives, by preference, should be reported separately for both assets and liabilities, as discussed in paragraphs 3.119 and 6.60. Notional values of financial derivatives are presented according to the formats shown in Appendix 9, Tables I–III. *The notional value (sometimes called notional amount or nominal amount) of a financial derivative is the amount underlying a financial derivative contract that is necessary for calculating payments or receipts on the contract.* This amount may or may not be exchanged. The notional values are useful for analysis because they provide information about the risk exposure and assist in understanding the link between financial derivatives and the underlying to which they relate.

7.38 Cumulation of transactions should never be used to estimate financial derivative positions. Transactions relate largely to those in options and to settlements. Settlements eliminate positions, while the value of derivatives positions emerges largely from revaluation.

7.39 ESOs are valued consistently with the cumulated compensation of employees until the vesting date (see paragraphs 11.20–11.21); thereafter, they are valued at market prices (see paragraph 9.30). ESOs can be measured from a market value of equivalent options or according to an options-pricing model, such as Black-Scholes. International accounting standards give guidance on methods, and recording in the international accounts normally will follow business accounts.

E. Other Investment

1. Valuation of nonnegotiable instruments

a. Nominal value

7.40 Nonnegotiable instruments include loans, deposits, and other accounts receivable/payable. The primary valuation for positions in these instruments is nominal value, which is defined in paragraph 3.88. In the case of other equity included in other investment, valuation methods for unlisted direct and portfolio investment equity may be used, as discussed in paragraphs 7.16–7.17 and 7.25.

7.41 Accrued interest not yet paid should be included in the outstanding amount of the financial asset or liability, rather than being classified separately (such as in other accounts receivable/payable). Accrued interest not yet paid also includes FISIM accrued and not yet paid.

7.42 Nominal values are not adjusted for expected losses or for changes in interest rates. The market value may differ from the nominal value primarily due to changes in market interest rates and the possibility that some liabilities may not be repaid. The possible divergence between nominal and market values arises for loans, but it can also arise for deposits and other accounts receivable/payable.

7.43 The use of nominal values for some nonnegotiable instruments, instead of market-equivalent values, in the IIP is partly influenced by pragmatic concerns about data availability and also by consistency in reporting by debtors and creditors. Nominal valuation is also useful in its own right, however, because it shows actual legal liability and the starting point of creditor recovery behavior.

7.44 The nominal value can be reduced by a write-off, restructuring, or debt forgiveness:

- Liabilities are canceled or written off, in part or in full, by the creditor as uncollectible, usually because of the bankruptcy or liquidation of the debtor, as discussed in paragraphs 9.8–9.11.
- In a formal debt reorganization, the old liability is regarded as being extinguished and a new liability created. (See Appendix 2, Debt Reorganization and Related Transactions.)

b. Additional data on loans and other nonnegotiable instruments

7.45 While nominal value is the primary valuation method for nonnegotiable instruments, it provides an incomplete view of the financial position of the creditor, particularly in cases in which the instruments are impaired. Consequently, additional items are included for loans to give additional information. The possible items are:

(a) fair value,

(b) nonperforming loans, and

(c) loan loss (bad debt) provisions.

These items are discussed in paragraphs 7.48–7.53. Data on debt in arrears are discussed in paragraphs 5.99–5.102. These are alternative indicators that can be used to assess the effect of impairment and other variations between nominal values and market-equivalent values. Fair value expresses a market-equivalent valuation of the position. Nonperforming loans indicate the value of the loans that are impaired, and loan loss (bad debt) provisions show amounts that are deducted from the nominal value to account for expected losses in business accounts.

7.46 The fair value of loans is shown as a memorandum item for creditors. If fair value data for loans are not available, the nominal value of nonperforming loans should be provided as a memorandum item. These memorandum items are included for assets but not liabilities. If fair value data are available, nonperforming loans is a supplementary item. Data on loan loss (or bad debt) provisions and arrears also may be provided on a supplementary basis.

7.47 The same issue of impairment arises for deposits and trade credit. For example, an insolvent bank may have closed its doors, so that its deposits may be worth less than their nominal value, so alternative measures for deposits and trade credit may be prepared, where relevant.

c. Fair value

Reference:

International Financial Reporting Standards, International Accounting Standard 39 Financial Instruments: Recognition and Measurement.

7.48 *Fair value is defined as the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's-length transaction*. That is, fair value represents a market-equivalent value, namely, an estimate of what could have been realized if the creditor had sold the loan. It is the preferred indicator of the effect of loan impairment as it represents an attempt to measure the realizable value. The fair value of loan assets is shown as a memorandum item for assets, where available.

7.49 The calculation of fair value takes into account expected loan losses. In addition, in the case of fixed-rate loans, it takes into account changes in market interest rates. In practice, the availability of fair value estimates of loans is limited by business accounting practice. A recent transaction in the loan or one of similar term, credit risk, and so on provides a good guide to the fair value. As the time since the transaction becomes longer and conditions change, such transactions values become historic prices and not market-equivalent values.

d. Nonperforming loans

7.50 *Nonperforming loans are defined as those for which:*

(a) *payments of principal and interest are past due by three months (90 days) or more, or*

(b) *interest payments equal to three months' (90 days') interest or more have been capitalized (reinvested into the principal amount) or payment has been delayed by agreement,*[3] *or*

(c) *evidence exists to classify a loan as nonperforming even in the absence of a 90-day past due payment, such as when the debtor files for bankruptcy.*[4]

7.51 Nonperforming loans are recorded at nominal value, which allows them to be compared with the total value of loans at nominal value. The value should include accrued interest not yet paid. Loans continue to be included in nonperforming loans until written off (see paragraphs 9.8–9.11), forgiven (see paragraphs 13.22–13.23), reorganized (see paragraph 9.29 and Appendix 2), or they become performing loans.

7.52 The three-month (or 90-day) criterion is the time period most widely used, although other periods are used. When the standard definition of nonperforming loans is not used, other definitions based on regulatory frameworks are acceptable. Because identification of nonperforming loans is a bank regulatory concept, it may not be used widely by other creditors. The nominal value of nonperforming loan assets is a memorandum

[3]If the loan is rescheduled, it is classified as a new instrument (see paragraph 7.53). Rescheduling interest arrears is not sufficient for the loan to have been considered rescheduled, see paragraph A2.12.

[4]See *Financial Soundness Indicators Compilation Guide*, paragraph 4.84.

item when loan assets at fair value are not available; otherwise, it is a supplementary item.

7.53 Information on replacement loans may be provided in addition to nonperforming loans. Replacement loans include loans arising from rescheduling or refinancing the original loan and loans provided to make payments on the original loan. Although these loans may be granted on "easier" than normal commercial terms, provided the terms and conditions of the replacement loan are complied with by the debtor, and subject to national supervisory guidance, the replacement loan is not classified as nonperforming.

e. Loan loss provisions

7.54 Loan loss provisions, also called bad debt provisions, are internal accounting entries made by creditors to take into account possible loan losses. These provisions may be used as an indicator of the difference between nominal values and fair values. International accounting standards allow for various approaches to derive these provisions, so procedures may differ between enterprises and between economies. Loan loss provisions may vary from the loss of value of nonperforming loans, for example, because there is adequate collateral for a nonperforming loan, or there is an expectation that a proportion of performing loans will default later.

f. Deposits and other accounts receivable/payable

7.55 Positions in deposits and other accounts receivable/payable give rise to the same issues of nominal and fair values as loans. For example, deposits may be held at a bank in liquidation, or trade credit liabilities may include those owed by insolvent debtors. These instruments should be recorded at their nominal value. However, if there is a significant difference between the nominal and fair value, indicators similar to those for loans should be shown as supplementary items.

g. Metadata on indicators of impairment

7.56 In view of the range of options concerning measures of impairment of loans and other nonnegotiable instruments, it is particularly important that metadata provide information on the definitions and sources used. As accounting procedures become more widely standardized, more prescriptive guidance may be given in statistical manuals for the adoption of particular indicators of impairment of loans.

2. Financial leases

7.57 A financial lease is defined in paragraph 5.56. The treatment of financial leases is designed to capture the economic reality of the arrangements. It moves away from the legal form by treating goods under a financial lease as if they were purchased and owned by the user. The financial lease is shown as a loan from the lessor to the lessee that is used to finance the acquisition of a fixed asset by the lessee. Financial leases affect goods, services, income, financial transactions, and positions.

3. Recording of positions associated with securities repurchase agreements and other reverse transactions

7.58 *Reverse transactions are arrangements that involve a change of legal ownership of securities or gold with a commitment to repurchase the same or similar securities or gold either on a specified date or with open maturity.* They include securities repurchase agreements, gold swaps, securities lending, and gold loans. The commitment to reverse the change in legal ownership in the future at a fixed price means that the original owner retains the risks and rewards of changes in the price of the asset. Accordingly, there is considered to be no change of economic ownership of the security or gold, so no transaction in that security or gold is recorded, and ownership of the asset as shown in the IIP is unchanged.

7.59 A reverse transaction may be with or without the supply of cash. If cash is supplied, as in a repurchase agreement (repo or securities lending with cash collateral), and in return the other party supplies securities, the arrangement is regarded as giving rise to a loan or deposit. (The classification of the cash supplied is discussed in paragraphs 5.52–5.54.) Analogously to repos, a gold swap for cash is treated as being a loan with the gold as collateral, and there is no change in the economic ownership of the gold.

7.60 There may be problems in attributing securities ownership when using custodians as a data source, because custodians may not know whether securities being held are under a repurchase agreement or not.

7.61 If a party that receives securities under a reverse transaction on-sells the securities to a third party, then it has a short position. The treatment of short positions is discussed in paragraph 7.28. Fees payable to one of the parties under a reverse transaction are discussed in paragraphs 11.67–11.68.

4. Overnight deposits

7.62 *Overnight deposits (or sweep accounts) involve funds that are moved back and forth overnight. In some cases, these overnight accounts are held in another economy.* The funds are returned at the beginning of the next working day and may then be moved back at the close of business. Positions should be measured after funds are moved at the end of the day. The calculation of major statistical aggregates—including external asset and liability positions and financial transactions—can differ substantially depending on whether they are measured before, or after, funds are moved. By measuring positions and transactions after the funds have been moved, consistency is ensured between the measure of interest flows and of positions. In addition, major data users are interested in the size and location of these stocks and flows for risk assessment and other purposes.

5. Insurance technical reserves, pension and annuity entitlements, and standardized guarantees reserves

7.63 These reserves include:

(a) prepayment of premiums and reserves for outstanding claims for nonlife insurance (both reported claims and for claims incurred and not reported). Equalization reserves (explained further in paragraph 5.64(b)) for events that have occurred are included, whereas reserves for events that have not occurred are excluded;

(b) entitlements of beneficiaries under life insurance policies and pension schemes; and

(c) provisions for calls under standardized guarantees.

7.64 Insurance technical reserves are regarded as liabilities of the insurance companies and assets of the policyholders and beneficiaries. For economies that are major insurance service exporters or importers, cross-border insurance reserves may be significant. For economies that are major sources or destinations of temporary workers or that are sources or destinations for retirees who change residence, life insurance and pension entitlements may be important elements of the IIP. Insurance technical reserves may be classified as direct investment in the cases discussed in paragraph 6.27.

7.65 The nature of the pension entitlements liabilities of the pension fund and the corresponding asset of the beneficiaries depend on the nature of the pension plan:

(a) *A defined contribution scheme is one in which the benefits are defined exclusively in terms of the level of the fund built up from the contributions made over the employee's working life and the increases in value that result from the investment of these funds by the manager of the pension scheme*. The entire risk of the scheme to provide an adequate income in retirement is thus borne by the employee. The liability of a defined contribution fund, and the corresponding assets of the beneficiaries, are equal to the current market value of the assets of the fund, including any claims on the employer. Defined contribution plans are always funded.

(b) *A defined benefit scheme is one in which the benefits payable to the employee on retirement are determined by the use of a formula, either alone or as a minimum amount payable.* The liability of a defined benefit scheme, and the corresponding assets of the beneficiaries, are equal to the present value of the promised benefits. In defined benefit schemes, benefits to the policyholder are guaranteed, but the scheme may be funded or unfunded.

7.66 The calculation of the value of pension entitlements may be direct or actuarial. Obligations of unfunded pension schemes are recognized as liabilities, based on actuarial estimates of the accrued liability to beneficiaries under the scheme. Potential payments by social security schemes are not recognized as financial assets or liabilities. (See paragraphs 5.66–5.67 for more detail about pension entitlements as a financial instrument.)

7.67 Provisions for calls under standardized guarantees are calculated in a similar way as described for nonlife insurance technical reserves. They are equal to the present value of expected calls under outstanding guarantees, net of any recoveries the guarantor expects to receive from the defaulting parties.[5]

7.68 To the extent that these reserves, entitlements, and provisions are measured from the accounts of insurance companies, pension schemes, and issuers of standardized guarantees, they may need to be split between liabilities to residents and nonresidents according to a suitable indicator such as premiums payable. The priority attached to the estimation of cross-border

[5]These amounts may represent an overstatement of the assets and liabilities. For example, financial institutions make 1,000 loans of 20 units each that are covered by standardized guarantees, of which estimated claims are 200. The combined assets (and combined liabilities) of all the parties involved would be shown as 20,200, consisting of 20,000 loans and 200 in expected calls under the guarantees, even though only a maximum of 20,000 could ever be realized. The overstatement arises because the loans are recorded at nominal value.

proportions of insurance reserves depends on their significance in each economy.

F. Reserves

7.69 At the appropriate reference dates, reserve assets are valued in the main at current market prices. Monetary gold is valued at the prevailing market price, SDRs are valued at market rates calculated by the IMF, and deposits and loans are valued at nominal values.

7.70 SDR holdings are a reserve asset, while the allocation of SDRs to IMF members is shown as the incurrence of a liability by the recipient and included in other investment. Therefore, for an economy that holds only its original allocation, its reserve assets are increased by the value of SDR holdings, but its net IIP is unchanged.

7.71 Reserve-related liabilities are shown as a memorandum item to the IIP on a short-term (remaining maturity) basis (see Appendix 9, Table V). They are defined in paragraphs 6.115–6.116. A comprehensive picture of foreign currency assets and liabilities of monetary authorities and central government, including positions with residents as well as nonresidents, can be presented according to the format in Table V in Appendix 9.

7.72 Positions with the IMF include reserve assets, reserve-related liabilities, other investment, and off-balance-sheet liabilities (these are elaborated in Annex 7.1).

7.73 Some governments have large special purpose government funds—usually known as sovereign wealth funds—as discussed in paragraphs 6.93–6.98. Some of these assets may be included in reserve assets or possibly in other functional categories. Where such a fund is significant, the special purpose government fund's foreign assets not included in reserve assets can be shown separately as supplementary items.

G. Off-Balance-Sheet Liabilities

7.74 As noted in paragraphs 5.10–5.14, some actual and potential obligations are not recognized as liabilities in the IIP. Examples include potential liabilities under one-off guarantees, unfulfilled loan commitments, and other explicit contingent liabilities (for further discussion, see Chapter 9, Contingent Liabilities, of *External Debt Statistics: Guide for Compilers and Users*). If such obligations to nonresidents are significant, compilers should provide supplementary data in terms of the maximum exposure loss by type of contingent liability.

Annex 7.1

Positions and Transactions with the IMF

Quotas

7.75 IMF member countries are assigned a quota on joining the IMF. The subscription of the quota consists of two components:

(a) Foreign exchange component. A member is required to pay 25 percent of its quota in SDRs or in foreign currencies acceptable to the IMF. This 25 percent portion is a component of the member's reserve assets. In the balance of payments, subscribing this portion is shown as a transaction involving a reduction in other reserve assets (credit) offset by an increase in the reserve tranche position in the IMF (debit).

(b) Domestic currency component. The other 75 percent of the quota is payable in the member's own currency at a designated depository, normally the member's central bank. The payment is made either in domestic currency (IMF No. 1 and No. 2 Accounts) or by issuance of a promissory note (IMF Securities Account). The No. 1 Account is used for the IMF's operational transactions (e.g., purchases and repurchases), whereas the No. 2 Account is used for the payment of local administrative expenses incurred by the IMF in the member's currency. The promissory notes are encashable by the IMF on demand. The domestic portion of the quota payment is not recorded in the member's balance of payments or in the IIP (see paragraph 6.85), except for the No. 2 account (see below). No interest is payable on either the deposit account or the note.

7.76 There are periodic reviews of the size of member quotas. Recording transactions that reflect a change in a member's quota is the same as the recording that takes place when the quota is initially paid.

Reserve position in the IMF

7.77 *Reserve position in the IMF of a country equals the sum of the reserve tranche plus any indebtedness of the IMF (under a loan agreement) in*

the General Resources Account that is readily available to the member country (for further details, see paragraph 6.85). The reserve tranche represents the member's unconditional drawing right on the IMF, created by the foreign exchange portion of the quota subscription, plus increases (decreases) through the IMF's sale (repurchase) of the members' currency to meet the demand for use of IMF resources by other members in need of balance of payments financing. A member's reserve position in the IMF constitutes part of its reserve assets in the IIP.

7.78 To use its reserve tranche in the IMF, a member may purchase foreign exchange from the IMF with its own currency, provided that it has a balance of payments need. The domestic currency, equal to the value of the foreign exchange, is paid into the IMF's No. 1 Account with the member's central bank or through the issuance to the IMF of a promissory note recorded in the IMF's Securities Account. The transaction is recorded in the balance of payments as a reduction in the member's reserve tranche in the IMF, which is offset by an increase in the member's other reserve assets.

Credit and loans from the IMF

7.79 A member may make use of IMF credit or Poverty Reduction and Growth Facility (PRGF) loans to acquire additional foreign exchange from the IMF. Economically, the use of IMF credit and PRGF loans results in the same outcome—that is, the member entering into these agreements has access to foreign exchange in return for agreeing to meet a set of conditions. Both IMF credit and loans are classified as loans under other investment, although the two types of arrangements are executed in different ways:

- A PRGF loan results in the member borrowing foreign exchange with a commitment to repay. Such loans do not affect the IMF No. 1 Account.
- When a member country uses IMF credit, it "purchases" foreign exchange from the IMF in return for its domestic currency. Use of IMF credit is shown as the member's liability (in SDRs) in the balance of payments and IIP, whereas the sale of domestic currency to the IMF in the No. 1 Account is not shown as a balance of payments transaction or in the IIP. Liabilities under IMF credit arrangements are extinguished when the member uses foreign exchange to "repurchase" its domestic currency.

7.80 For use of IMF credit, if the value of the member's domestic currency changes in relation to the SDR, "maintenance of value payments" are made once a year in the No. 1 Account in domestic currency to maintain a constant SDR liability. Because the liability is denominated in SDRs, the maintenance of value payments are not entered as transactions in the balance of payments.

7.81 A member may also extend credit or make loans to the IMF that are not considered to be a part of the Reserve position in the IMF. Such a situation arises, for example, in the circumstance where a member's claim on the IMF is not immediately encashable at a time of balance of payments need.

Remuneration

7.82 The IMF pays its members "remuneration" quarterly on the basis of their reserve tranche position, except for a small portion related to prior quota payments in gold that are interest-free resources to the IMF. This remuneration is classified on an accrual basis as investment income–reserve assets–interest (credit), which is offset by an increase in reserve assets (debit).

IMF No. 2 Account

7.83 As discussed above, the IMF No. 2 Account is used by the IMF for administrative payments. Unlike the No. 1 Account, it is reflected in the balance of payments of a member as a liability. Transactions involving the No. 2 Account are recorded as increases or decreases in this liability and are offset by the source of funds (in the case of an increase) or the use of funds (in the case of a decrease). For example, when the IMF transfers funds from the No. 1 Account to the No. 2 Account in a member economy, the member's balance of payments shows an increase in its reserve tranche (debit). The increase reflects the reduction in IMF holdings of the member's currency in the No. 1 Account and is offset by an increase in the member's other investment liabilities relating to currency and deposits (credit). When the IMF uses funds from the No. 2 Account to pay for the acquisition of goods and services, the balance of payments of the member shows a reduction in this account (debit) and an offset (credit) under government goods and services n.i.e.

Special drawing rights

7.84 The SDR is an international reserve asset created by the IMF in 1969. It is administered by the SDR Department of the IMF, which is required by the IMF's

Articles of Agreement to keep its accounts strictly separate from the General Resources Account. The SDR is not a claim on the IMF. Rather, the membership of the SDR Department incurs the asset or liability position. Further information is covered in other chapters:

- SDRs are instruments as defined in paragraphs 5.34–5.35.
- SDR allocations received by a country are reported as liabilities under other investment (paragraph 6.61) and reserve-related liabilities (paragraph 6.116).
- SDR holdings are classified as reserve assets (paragraph 6.84).

Further information on IMF operations

For more information on IMF operations, see the IMF's *Financial Organization and Operations of the IMF*, Pamphlet Series No. 45.